

(19) World Intellectual Property  
Organization  
International Bureau



(43) International Publication Date  
31 December 2003 (31.12.2003)

PCT

(10) International Publication Number  
**WO 2004/001854 A3**

(51) International Patent Classification<sup>7</sup>: **H01L 29/41**,  
29/06

(21) International Application Number:  
PCT/IB2003/002929

(22) International Filing Date: 13 June 2003 (13.06.2003)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:  
0214618.1 25 June 2002 (25.06.2002) GB

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(81) Designated States (*national*): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

(84) Designated States (*regional*): ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

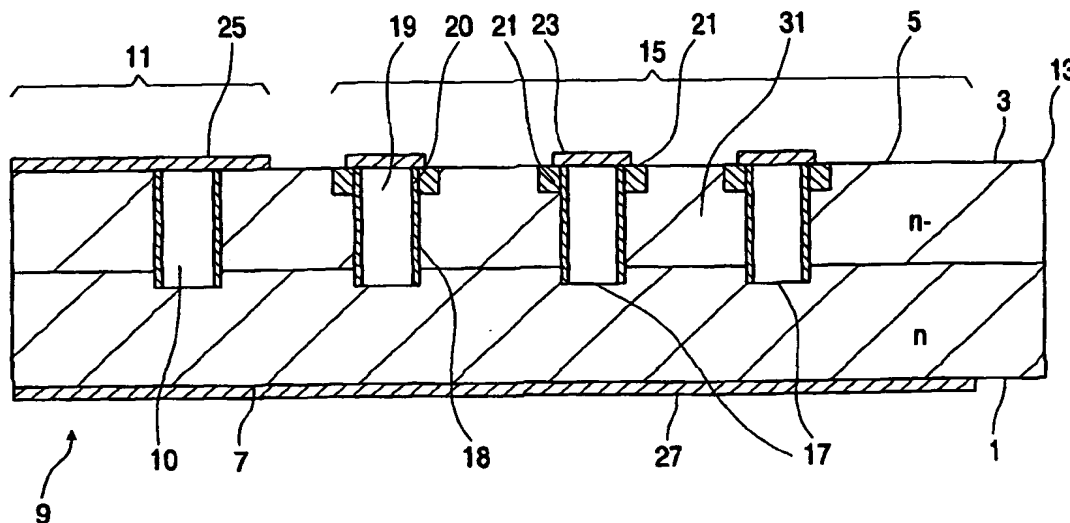
**Published:**

- with international search report
- before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments

(88) Date of publication of the international search report:  
4 March 2004

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: SEMICONDUCTOR DEVICE WITH EDGE STRUCTURE



(57) Abstract: A semiconductor device has an edge termination region (15) having a plurality of trenches (17). Conductive material (20) and insulating material (19) is formed at the trenches, and surface implants (21) are formed on either side of the trenches. A conductive bridge (23) connects the surface implants (21) to allow equilibrium to be reached in reverse bias.

# INTERNATIONAL SEARCH REPORT

International Application No.

PCT/IB 03/02929

A. CLASSIFICATION OF SUBJECT MATTER  
IPC 7 H01L29/41 H01L29/06

According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)  
IPC 7 H01L

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the International search (name of data base and, where practical, search terms used)

EPO-Internal, INSPEC, PAJ

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	WO 99 23703 A (SIEMENS AG ET AL) 14 May 1999 (1999-05-14) cited in the application page 12, line 8 -page 14, line 17; figures 4A-4D, 5C	1, 2, 5, 8-10
A	EP 1 011 146 A (ST MICROELECTRONICS SRL) 21 June 2000 (2000-06-21) cited in the application column 5, line 54 - line 57; figure 12 --- -/--	1, 2, 5, 8-10

☒ Further documents are listed in the continuation of box C.

☒ Patent family members are listed in annex.

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Date of the actual completion of the International search

19 December 2003

Date of mailing of the International search report

05/01/2004

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# INTERNATIONAL SEARCH REPORT

International Application No  
PCT/JP 03/02929

## C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	VAN DALEN R ET AL: "BREAKING THE SILICON LIMIT USING SEMI-INSULATING RESURF LAYERS" PROCEEDINGS OF THE 13TH INTERNATIONAL SYMPOSIUM ON POWER SEMICONDUCTOR DEVICES & ICS (ISPSD '01), OSAKA, JP, 4 - 7 June 2001, pages 391-394, XP001052044 IEEE, NEW YORK, NY, USA ISBN: 4-88686-056-7C figures 1B,1C	1,2,5,6,9,10
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Information on patent family members

International application No

PCT/JP 03/02929

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